REMARKS/ARGUMENTS

Claims 11 to 15 have been canceled. Claims 1-10 are active in the case. Reconsideration is respectfully requested.

The present invention relates to core/shell copolymers based on (meth)acrylate esters, which, as a particulate material, is useful as an impact modifier in poly(meth)acrylate molding compositions.

Specification Amendments

The specification on page 8 has been amended as requested by the Examiner in order to eliminate reference to Claim 1 in the specification. Entry of the amendment is respectfully requested.

Claim Amendments

Claims 11 - 15 have been canceled in order to address the issue that has been raised in paragraph 3 of the Official Action. Withdrawal of the issue is requested.

Claim Rejection, 35 USC 102 & 103

Claims 1-10 stand rejected based on 35 USC 102 and 35 USC 103 as anticipated by or rendered obvious over Fraser et al, U. S. Patent 6,172,135 (WO 96/37531). This ground of rejection is respectfully traversed.

The present invention is directed to a core/shell (meth)acrylate copolymer composition, which, in particulate form, is useful as an impact modifier in poly(meth)acrylate molding compositions. Applicants maintain their previously stated position with regard to the distinction in particle size range as stated in the presently claimed core-shell particle material and that of the patent. It is noted that regardless of the word "preferably" there is nevertheless

no expressed range in the patent broader than the range 250 to 320 nm. The only other range recited is an even more preferred range of 270 to 300 nm. Accordingly, the patent disclosure does not anticipate the presently claimed invention. Withdrawal of the rejection is respectfully requested.

As to the matter of the obviousness rejection of the claims, applicants maintain that the presently claimed core-shell particle is unobvious on the basis of the core-shell size of the present particles over the core-shell size of the particles described in the reference.

Applicants also submit that unobviousness is established in the record on the basis of the improved low temperature impact resistance of the claimed particles as is clear from data in the specification. The examples describe the formation of five different core-shell particles from three emulsions for each product. These core-shell particle products are identified in Table 1 as VB1, VB2, B1, B2 and B3. VB1 and VB2 are comparative products, because Emulsion II of product VB1 contains a greater than 50 % amount of styrene monomer relative to the acrylate and methacrylate comonomers, while Emulsion II of product VB2 contains no styrene. On the other hand, the three remaining monomer mixtures of Emulsions II of formulations B1 to B3 contain 5 % of styrene monomer. Upon formation of each of the five particle types, each particle type was blended into a polymethylmethacrylate matrix material to form the five compositions, data for which are presented in Table 2. The impact resistance data on page 52 are particularly instructive because both the notched Izod impact strength data and the notched Charpy impact strength data show the improved low temperature impact resistance for the low styrene content examples B1 to B3 of the present invention versus the two comparative compositions VB1 and VB2.

On the other hand, Fraser et al in the last table in column 9 shows two molded articles (presumably polymethylmethacrylate), one of which is prepared from a first shell emulsion containing 18 % styrene and the other is prepared from a first shell emulsion containing 9 %

styrene. (Both of these preparations are prepared from first shell emulsions that contain greater than the 2 to 8 % by wt of styrene in the first shell emulsion formulation of the present invention.) The notched Izod impact strength data of the two examples show that the extent of percent loss of low temperature impact strength, particularly at -20° C, for the two examples shown is greater than the percent loss of impact strength for the three examples B1 to B3 of the present invention. Even though the reference in column 9 acknowledges a reduction in the amount of styrene in the first shell improves the low temperature characteristics of molded articles, applicants submit that one of skill would not expect that a reduction in the amount of styrene even further down to 2 to 8 % wt range of the present claims would result in even further improvement in impact strength resistance. Accordingly, the invention as claimed is not believed to be obvious over Fraser et al and withdrawal of the rejection is respectfully requested.

It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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